

REMARKS

By this Amendment, Applicants amend claims 6 and 9 to correct informalities. Claims 1-3, 5-11, 13-19, and 21-51 remain currently pending.

In the Office Action, the Examiner allowed claims 1-3, 5-11, 13-19, and 21-36. The Examiner rejected claims 37-43 and 47-51 under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,201,830 to Chellali et al. ("Chellali"); and rejected claims 44-46 under 35 U.S.C. § 103(a) as unpatentable over Chellali in view of U.S. Patent No. 6,711,207 to Amrany et al. ("Amrany").¹ Applicants thank the Examiner for allowing claims 1-3, 5-11, 13-19, and 21-36. Applicants respectfully traverse the Examiner's rejections under both § 102 and § 103.

Regarding Claim Rejection under 35 U.S.C. § 102

Applicants respectfully traverse the Examiner's rejection of claims 37-43 and 47-51 under 35 U.S.C. § 102(e) as anticipated by Chellali. In order to anticipate Applicants' claimed invention under 35 U.S.C. § 102, each and every element of the claim in issue must be found, either expressly described or under principles of inherency, in a single prior art reference. Further, "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." See M.P.E.P. § 2131, quoting Richardson v. Suzuki Motor Co., 868 F.2d 1126, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989).

Independent claim 37 recites a combination including, for example, "omitting a plurality of processing for responding to the data traffic if there is no data traffic over the DSL channel for a first period of time indicating an idle period and resuming the omitted

¹ The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

processing if a second time period expires triggering an end of the idle period.” Chellali fails to disclose at least the above listed element as recited by claim 37.

Chellali teaches a method “for reducing computational requirements during idle transmission in remote access systems incorporating digital subscriber line (DSL) modems.” Chellali, abstract. Chellali teaches “Method 1” in which “[t]he transmitter first determines the presence of idle data to be transmitted and initializes the transition to the low-complexity mode, . . . [t]he transmitter must indicate this transition to the receiver using the pilot tone so that full-complexity decoding is not applied.” Chellali, column 4, lines 28-33. Chellali also teaches “Method 2” in which “[t]he transmitter indicates the valid/idle status of the next frame to the remote receiver by modulating the phase of the pilot tone in the current frame.” “If the next frame contains valid data, the pilot phase will not be altered. However, if the next frame contains idle data, then the pilot phase will be rotated by 180 degrees.” Chellali, column 5, lines 26-31. “Both methods use modulation of the pilot tone for the transmitter to indicate to the receiver the status of current/next frames of data.” Chellali, column 6, lines 34-36, emphasis added.

However, Chellali’s teaching of using modulation of the pilot tone does not constitute “omitting a plurality of processing for responding to the data traffic if there is no data traffic over the DSL channel for a first period of time indicating an idle period and resuming the omitted processing if a second time period expires triggering an end of the idle period,” as recited in claim 37 (emphasis added).

With respect to Chellali, the Examiner alleged that “wherein if there is an IDLE data indication, the IDLE data is IGNORED (omitting a plurality of processing) for the duration of the IDLE period wherein Fig. 7b discloses the duration of the IDLE period

being 2 frame length wherein when POSITIVE PHASE is indicated (a second period), this triggers the end of the IDLE period (see col. 6, lines 28-52)." (Office Action at 2). Applicants respectfully disagree.

In Fig. 7b, as Chellali explicitly states, "Method 2 modulates the phase of the pilot tone to indicate the status of the data in the next frame." Chellali, column 6, lines 40-41. Therefore, the trigger is the phase modulation of frames and is not necessarily related to the number of frame length. The Examiner apparently misapplies an illustration of phase modulation of two IDLE DATA frame as "second time period expires triggering an end of the idle period," as recited in claim 37.

Therefore, Chellali fails to disclose each and every claim element of independent claim 37. Chellali thus cannot anticipate claim 37 under 35 U.S.C. § 102(e). Accordingly, Applicants respectfully request withdrawal of the Section 102(e) rejection of claim 37. Because claims 38-43, 47, and 48 depend from claim 37, either directly or indirectly, Applicants also request withdrawal of the Section 102(e) rejection of claims 38-43, 47, and 48 for at least the same reasons stated above.

Independent claim 49 recites a combination including "a controller to perform a plurality of operations for processing valid data or non-valid data and to omit some of the operations if non-valid data is received for a first period of time indicating an idle period" (emphasis added). In view of the discussion of Chellali set forth above, Chellali fails to teach entering into a low-complexity computation mode based on checking whether a time period has passed. Therefore, Chellali fails to disclose each and every element of claim 49, so that claim 49 is allowable over Chellali. Accordingly, Applicants

respectfully request withdrawal of the Section 102(e) rejection of claim 49 and claims 50-51 which depend from claim 49.

Regarding Claim Rejection under 35 U.S.C. § 103

Applicants respectfully traverse the Examiner's rejection of claims 44-46 under 35 U.S.C. § 103(a) as unpatentable over Chellali in view of Amrany. In order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, the prior art reference (or references when combined) must teach or suggest all the claim elements. Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify a reference or to combine reference teachings. Third, there must be a reasonable expectation of success. See M.P.E.P. § 2143.

Claims 44-46 indirectly depend from claim 37. As explained above, Chellali fails to teach or suggest at least "omitting a plurality of processing for responding to the data traffic if there is no data traffic over the DSL channel for a first period of time indicating an idle period and resuming the omitted processing if a second time period expires triggering an end of the idle period," as recited in claim 37. Amrany fails to cure Chellali's deficiencies.

Amrany teaches "a system and method that detects periods of no activity in the downstream data path of a DSL modem and reduces the transmit power in the output line driver to reduce power consumption in the modem." Amrany, abstract. However, Amrany fails to teach or suggest at least "omitting a plurality of processing for responding to the data traffic if there is no data traffic over the DSL channel for a first period of time indicating an idle period and resuming the omitted processing if a second

time period expires triggering an end of the idle period," as recited by claim 37 (emphasis added).

Therefore, neither Chellali nor Amrany, taken alone or in any reasonable combination, teaches or suggests all claim elements recited in claim 37. A *prima facie* case of obviousness has not been established. Claim 37 is thus allowable over Chellali in view of Amrany. Because claims 44-46 depend from claim 37, either directly or indirectly, claims 44-46 are also allowable for at least being dependent on an allowable base claim. Accordingly, Applicants respectfully request withdrawal of the Section 103(a) rejection of claims 44-46.

Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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